

LOUISA ROADS FOUND ALMOST BOTTOMLESS

M. M. Eisenman, of Cleveland, Meets
Hardships in Endurance Run
From Cleveland.

GOOD TIME ON TURNPIKES

Between Bedford, Pa., and Staunton
an Average of 45 Miles an Hour
Was Made—Covered 746 Miles in
23 Hours on Original Air.

Among the visiting automobilists in Richmond during the past week was M. M. Eisenman, president of the Eisenman Auto Company, Cleveland distributor for the National Automobile Club. Accompanying Mr. Eisenman were his wife and little daughter, and the trip from Cleveland, Ohio, to Richmond, a distance of 746 miles, was made in twenty-three hours.

"It was an endurance run," said Mr. Eisenman in describing the trip. "We left Cleveland at 7:05 o'clock the morning of August 1 and arrived in Richmond at 11 o'clock on Thursday morning. We traveled in a National twelve-cylinder stock touring car. It was painted white when we left Cleveland, but after going through the mud-holes in Louisa County, Va., you would not think it had ever been white. From Bedford, Pa., via Hagerstown, Md., to Staunton, Va., we found exceptionally good roads, and averaged forty-five miles an hour. Several officers held us up along the highway, but when we showed them letters from the chief of police of Cleveland, which stated the purpose of the run, we were allowed to proceed.

"Despite the fearful roads from Staunton to Richmond, particularly in Louisa County, where recent heavy rains have practically made the roads bottomless, we made the 746-mile run without a change in tire—in fact, came through on the Goodrich tires with the original Cleveland air in them. We frequently used fence rails to get out of bad places in the roads.

"Between Louisa Countyhouse and Richmond we found only two small signs to guide us. It seems that the Richmond Auto Club and road authorities ought to pay special attention to the marking of the 'Mountain Highway' and assist in every way the rebuilding of the road which traverses a rich and interesting section of the old Commonwealth. The proper marking of highways is a benefit to all who travel as well as to those from outside the State."

DEMAND INCREASING FOR TRAINED ROAD ENGINEERS

College and university students who specialize in the highway engineering branches of civil engineering courses will find unusual opportunities henceforth of securing early employment and good pay after winning their degrees.

There has long been a decided lack of trained road engineers, and the demand for them is increasing rapidly. Probably no other branch in engineering offers such sure reward at this time.

Eighteen State highway commissions out of twenty-four reporting to the National Automobile Chamber of Commerce, in New York City, state that there is a lack of trained road engineers and sixteen say that preference would be given to graduates of college highway engineering courses in the appointment of additional road engineers.

Nearly 1,600 engineers are now employed by the twenty-four State commissions, and, in addition, about 2,000 are employed as county and city engineers in nineteen of the States.

Salaries of highway engineers range from \$500 to \$2,500 a year. The average is about \$1,300.

There has been a tremendous increase in highway improvement throughout the country during recent years, and the demand for good roads is growing rapidly. Highway commissioners report they anticipate the number of engineers employed by the State highway departments will be doubled at least within five years.

Enactment of the Federal good roads bill appropriating \$25,000,000 for construction of public roads during the next five years, provided the various States appropriate an equal amount, assures the expenditure of \$50,000,000 on main State highways in that period. This will greatly stimulate the building of minor roads by the States and counties. More than \$250,000,000 is now spent annually in the United States for road construction, repair and maintenance.

CONVICTS DO ROAD WORK IN FORTY-EIGHT COUNTIES

Remarkable Work Accomplished in
West Virginia—Cost of Re-
pairing Very Low.

Forty-eight counties in West Virginia employed convicts in building and repairing roads during the year ended June 30.

FORD REPAIRS
PROMPT AND GOOD WORK
BY
SKILLED MECHANICS
Free Service to Customers.
H. A. VAN NESS
1829 West Broad Street.

Ross
LIGHT

\$1350

---See it
---Ride in it
---And you will
buy it

**Hicks Motor
Car Co.**
1609-11 West
Broad Street

ing June, 1916. Hon. A. D. Williams, director of the State Highway Department of West Virginia, has forwarded to the National Committee on Prison Pictures which show the remarkable accomplishment of these county prisoners. An honor prisoner is shown in one picture standing beside a wall that he erected in Kanawha County at a cost of only \$1.15 per cubic yard.

The pictures also show a prison camp half the mile below Kimball, with a portable jail in the center and a prisoner driving; also prisoners opening up a new quarry and a stretch of country road two miles above Welsh along the Tug River, which the prisoners cut through a solid cliff.

The National Committee on Prison Pictures has published some of the West Virginia road pictures in an illustrated pamphlet just issued. The pamphlet takes up the various phases of prison work which the committee is carrying on. The West Virginia road work is the result of legislation prepared by the National Committee on Prisons, and is successful because of the coordination of the State Highway and Prison Departments, which the committee holds essential to the right development of convict road work.

McDowell County, states that "out of the large number of prisoners in McDowell County, which have been working upon the county roads only a small number have been in a jail a second term. Prior to working on the roads we had a number of repeaters."

When the influence in most counties is considered the importance of the West Virginia road work is realized, while the fact that the road-making convicts are under State control is a step towards bringing the county jails themselves under the control of the State prison authorities.

HOW STEEL IS TESTED TO ASCERTAIN HARDNESS

Machines and devices for testing the materials that go into automobiles are being constantly developed and im-

proved. A notable advance is the new Brinell steel testing machine, of which one of the finest examples in the country is installed in the laboratory of Dodge Brothers.

With this machine the hardness of the various steels that enter into Dodge Brothers' cars is tested and careful checks are kept on all material.

In testing a piece of steel, it is placed in the machine and a small ball of great hardness is pressed into the piece to be tested. By the pressure exerted, which is indicated on a gauge, and by the dimensions of the impression made on the piece, the operator is able to make comparison with certain standard figures and arrive at the exact hardness of the steel tested.

This method of testing steel has largely superseded the old method, whereby small steel balls were dropped on the test piece and the height of the rebound indicated the hardness of the steel.

Both the machines are the inventions of J. A. Brinell, a Swedish engineer, who has a wonderful reputation because of his knowledge of steel and its composition.

HUPMOBILE TRIUMPHS IN MICHIGAN PIKE TOUR

Four-cylinder Type Car Pulls Out of
Places Where Sixes and
Twelves Stuck Fast.

Participants in the first annual East Michigan Pike tour held, under the auspices of the good roads committee of the Detroit Board of Commerce, had an excellent, although unexpected, illustration of efficiency of many makes of motor cars which have been widely advertised.

The east pike tour was held in the interest of good roads, and every big man in the Michigan good roads movement was included in the list of tour-

ists, who made addresses en route. Naturally, many difficult roads were encountered, and the local sandy hills of Northern Michigan, on the run from Detroit to Mackinaw city, were enough to call for the best in a motor.

All cars which started on the run finished the 400-mile trip on schedule time, but several had difficulties when the deep sand was encountered. President J. Walter Drake, of the Hupp Motor Car Corporation, who is a member of the Detroit good roads committee, sent one of the seven-passenger Hupmobile touring cars for the use of the newspaper men en route. Carrying Detroit pressmen, this car was the surprise of the trip, as it made the entire route on its own power, and there was no hill too steep or sandy for the four-cylinder Hupmobile.

In fact, the tour was really a triumph for the four-cylinder type motor, as all the so-called multi-cylinder type cars were pulled through the sand by teams some time en route, on one particularly bad hill which the Hupmobile made in easy fashion it was necessary to pull four machines up by team.

These four included three sixes and a twelve-cylinder car. The next day two eight-cylinder machines were pulled through a sandy spot by teams, and later on one of the eight was rescued from its sandy berth by a life-saving crew with a long rope.

The performance furnished much amusement to the representatives of the press, and they congratulated themselves upon their good judgment in selecting the four-cylinder Hupmobile for their trip, although invited by others to make the trip in their cars.

Smashes All Records.
The past six months' record of the Willys-Overland Company has shattered all previous records. From January 1 to June 30, 34,155 automobiles

have been manufactured and sold, as against the previous record of 37,841 during the same period of 1915.

The tremendous increase of Overland production has shown itself in Richmond, as every one has noticed and commented upon the enormous quantity of Overlands giving satisfactory service in the city of Richmond.

The Harper Overland Company expects to double its business this year, and service stations is completed, and facilities are afforded to increase sales.

ENCOURAGES SAVING AMONG ALL EMPLOYEES

To encourage the spirit of saving among employees, Charles B. Whittelsey, president of the Hartford factory of the United States Tire Company, has written to those of his workers who are with Uncle Sam's forces on the border, and who left behind dependents, suggesting that they wages every alternate week be deposited in a savings bank, rather than the entire amount being paid weekly to their dependents. As was announced some weeks ago, the United States Rubber Company and its subsidiaries, which include the Hartford Company, are allowing full pay to all employees answering the call to arms, as well as holding open their positions until their return. It consequently followed that, while the pay went on as usual, the men enlisted shifted the responsibility of providing for their own needs over to the government. Hence the suggestion for savings.

That Mr. Whittelsey's idea has met with favor is indicated by the number of men who have put it into practice. The list of depositors grows daily, starting with a first-day deposit total of \$2,200. Interest is credited monthly to each account, so that the boys will have a few extra dollars to their credit when they come marching home, in addition to knowing that their dependents have been amply provided for during their absence.

WOMAN MAKES LONG DRIVE IN MAXWELL CAR

Mrs. Dick O'Bannon, of Sherman, Texas, motored into Detroit last week in her pet automobile, "Bill."

"Bill" is a Maxwell touring car with a fine appetite for the open road, but a very moderate thirst.

"He is strictly temperance," said Mrs. O'Bannon. "I kept close track on his gasoline consumption and it averaged twenty-four miles to the gallon on the long trip from Dallas to Detroit."

Besides Mrs. O'Bannon, there is her neighbor, Mrs. R. E. Minshaw, and her three children—Alan, aged thirteen; Frank, nine, and Mary Grace, four. Then there is a lot of baggage, bedding, cooking utensils, etc., for the O'Bannon party is doing a lot of camping out along the trail. Altogether, the Maxwell is loaded down with 1,000 pounds avoirdupois.

Since he hit the trail at Dallas, "Bill" has passed through Texas, Oklahoma, Kansas, Missouri, Illinois, Indiana, Ohio and Michigan. Before he takes his precious party back home, he will take in New York and, finally, he will take in Washington, D. C., because the children want to see where the President of the United States lives.

It's a matter of geography. Mrs. O'Bannon says her children have learned more about their country this summer than they could have absorbed in five years at school.

The old-fashioned way of learning

geography was through books," she says; "but there's no use doing that when we have Maxwells. 'Bill' takes us wherever we want to go. We've had no trouble. We've taken some rough roads, but 'Bill' thrives on punishment. I've driven a car less than a year, so I'm still an amateur. I don't know any tricks about saving gasoline. But I keep close record and we've averaged twenty-four miles to the gallon all the way through."

Besides touring through the country, the party has taken in most of the large cities along the way. Mrs. O'Bannon, in spite of limited experience at the wheel, had no trouble in the streets of Chicago and Detroit.

Open Sales Room This Week.
The people of Richmond will be interested to know that the new sales room and service station of the Harper Overland Company will be completed this week.

The new Harper Overland show room will be one of the most beautiful and up-to-date automobile sales rooms in the South, and will show a great advancement over previous sales rooms in this section.

The opening will most likely be started next Friday with many unique features, and it will be of interest to all Richmond people who attend.

The Harper Overland Company extends a hearty invitation to the public to visit its new show room during opening week.

DODGE BROTHERS MOTOR CAR

A definite feeling of confidence in the name—Dodge Brothers—existing almost everywhere, is the very strongest assurance you could have that the car will always conform to the highest possible standards.

The gasoline consumption is unusually low
The tire mileage is unusually high
The price of the Touring Car or Roadster complete is \$785 (f. o. b. Detroit)

Commonwealth Motor Co., Inc.
1647 West Broad,
Randolph 3558. Richmond, Va.

"AND NOW—THE PAIGE FAIRFIELD "SIX-46" HAS ESTABLISHED A NEW WORLD'S RECORD FOR MOUNTAIN CLIMBING

On July 6th, a Paige "Fairfield" stock car shattered every existing record for mountain climbing in an automobile.

By one of the most amazing exhibitions of endurance ever recorded, this car battered its way six miles up the rugged, snow-clad side of Mount Hood, near Portland, Oregon, and reached a point more than three quarters of a mile beyond the timber line.

Only the man who is familiar with the dizzy height of Mount Hood can fully appreciate just what this achievement means—but suffice it to say that no motor car made in this country or abroad has ever come within three miles of this astounding Paige record.

For years, the ascent of Mount Hood has been a favorite testing "stunt" for adventurous automobilists. Cars of all makes and all horse powers have done their level best to work their way up the side of this grim old mountain. But, up to July 6th, no car had ever succeeded in reaching a higher point than midway between Government Camp and the timber line.

Then, came the memorable trip of the Paige.
This car—a stock model in every respect—set out from Portland with seven passengers on Saturday, June 10th. In two days it had negotiated the gruelling climb to Government Camp, and there was awarded the Pridemore Silver Cup for being the first car to reach the camp this season.

Here, surely, was glory enough for any one car—but, not so the Paige. Despite dire warnings from the mountaineers and almost unanimous prediction of disaster, the nose of that stout hearted Paige was again pointed toward the clouds and the most thrilling climb in automobile history had commenced.

It is impossible in this limited space to give an adequate description of the terrific struggle which ensued. But the photographs on this page tell a story that will quicken the pulse of every man who has a drop of sportsman's blood in his veins.

Most of the time, the Paige was solidly sheathed in ice, and it was necessary to use every ounce of power in the motor to break through the husk snowdrifts which blocked the way. And all this, mind you, while the gnomometer registered grades as high as 50 per cent.

Even the mildest flight of imagination will tell you what would have happened if the motor had stalled—if the clutch had slipped—if the car had "laid down" for a minute or two while crossing a crevasse 2000 feet in depth.

But the Fairfield didn't "lay down." It went on and on—up and up—until the timber line had been left far behind. And, when stood at an elevation of 9500 feet above sea level.

Never in the course of your whole experience, will you have occasion to demand so much of a motor car. This ascent of Mount Hood was, we frankly admit, a "stunt" pure and simple—a merciless trial of endurance—an unprecedented test of stamina.

But the "Fairfield" went through like the thoroughbred that it is—without a single mechanical adjustment or replacement of any kind. So, with absolute confidence, we challenge the entire motor car world to produce an automobile—no matter what the price may be—to equal this achievement of the Paige.

The mountain is still there. Very shortly a bronze tablet will mark the spot which that "Fairfield" reached—9500 feet above the sea. Is there another make of car in the United States that can stand up under such a gruelling test?

PAIGE-DETROIT MOTOR CAR COMPANY, DETROIT, MICH.
D. A. PRENTISS, Distributor

310-312 W. Broad St., Richmond, Va.—Randolph 460.
Agents Wanted for Open Territory.
We have just prepared a booklet describing this thrilling climb in detail. Send for your copy today.



ONE of the greatest boons which the Eight-cylinder Cadillac confers upon motorists is that it removes the strain and the weariness from long distance motor travel.

If ever a motor car was at once both stimulating and soothing, that car is the Cadillac "Eight."

Men and women all over the world are awakening to this delightful discovery.

The roads of the continent are calling to them with a new charm and a new insistence.

Immediate Deliveries.

JONES MOTOR CAR CO.

1651 W. Broad St. Ran. 463.

STORAGE BATTERIES

Starting, Ignition and Lighting.
Recharged, Repaired and Renewed by Expert Battery Mechanic.

MORRIS HUNTER

EVEREADY SERVICE STATION,
118 North Eighth Street.